Claims:

1. (Currently amended) In a bushing for making fibers from a molten material comprising at least one sidewall and a tip plate or orifice plate through which molten material flows to form the fibers, and a first screen having a generally uniform hole size and density spaced above said tip plate, said first screen being attached to said sidewall, the improvement comprising a second screen lying on top of said first screen, said second screen having a significantly lower percentage of hole area, based on the total area of the second screen, than the percentage of hole area of said first screen, based on the total area of the first screen.

2. (Currently amended) In a bushing for making fibers from a molten material ~~from channel positions~~, said bushing comprising at least one sidewall and a tip plate or orifice plate through which molten material flows to form the fibers, and a screen having a plurality of holes therethrough and mounted on the interior of the bushing and spaced above the top of the tip plate or orifice plate, said screen having holes therein and being attached to said sidewall, the improvement comprises a
generally mid or central portion of the screen having a hole area per unit area of screen that is significantly smaller than the hole area per unit area of screen of two end portions of the screen, one end portion being on either side of the mid or central portion, one of said end portions being smaller in area than the other of said end portions ~~with the smaller end portion being closest to the channel.~~

3. (Original) The bushing of claim 1 wherein said material is glass and said bushing, including the screen, is made from a precious metal or precious metal alloy with the major portion of said metal being platinum.

4. (Previously Amended) The bushing of claim 2 wherein said material is glass and said bushing, including the screen, is made from a precious metal or precious metal alloy with the major portion of said metal being platinum and wherein said screen has a thickness of between about 0.009 to about 0.015 inch.

5. (Currently Amended) The bushing of claim 1 wherein the percentage of hole area in said second screen is at least 10 percent less, per unit area, than the ~~percentate~~ percentage of hole area in said first screen.

6. (Currently Amended) The bushing of claim 5 wherein the percentage of hole area in said second screen is at least 20 percent less, per unit area, than the ~~percentate~~ percentage of hole area in said first screen.

7. (Currently Amended) The bushing of claim 6 wherein the percentage of hole area in said second screen is at least 30 percent less, per unit area, than the ~~percentate~~ percentage of hole area in said first screen.

8. (Currently Amended) The bushing of claim 2 wherein the hole area per unit area of screen in said mid or central portion is at least 10 percent less than the hole area per unit area of said end portions, which ~~open~~ hole area in said end portions ranges between about 10 to about 16 percent ~~open~~ hole area based on the total area of the end portions.

9. (Currently Amended) The bushing of claim 8 wherein the hole area per unit area of screen in said mid or central portion is at least 20 percent less than the hole area per unit area of said end portions.

10. (Currently Amended) The bushing of claim 9 wherein the hole area per unit area of screen in said mid or central portion is at least 30 percent less than the hole area per unit area of said end portions.

11. (Previously Amended) A lay in screen of a precious metal or precious metal alloy for laying on top of another screen in a fiberizing bushing having a plurality of holes therethrough, said lay in screen comprised of a mid or central portion and two end portions, said mid or central portion having a hole area per unit area of the central portion that is significantly less than the hole area of the end portions per unit area of the end portions, one of the end portions being smaller than the other end portion, and the thickness of said screen being between about 0.009 and 0.011 inch.

12. (Original) The screen of claim 11 wherein said significantly less is at least 10 percent.

13. (Original) The screen of claim 12 wherein said significantly less is at least 20 percent.

14. (Original) The screen of claim 13 wherein said significantly less is at least 25 percent.

15. (Original) The screen of claim 14 wherein said significantly less is at least 30 percent.

16. (Currently Amended) A method of making fibers from a molten material wherein said molten material is heated in a bushing comprising at least one sidewall and a tip plate or orifice plate through which molten glass flows to form the fibers, said bushing further comprising a first screen having holes therein with a generally uniform hole size and density spaced above said tip plate or orifice plate, said first screen being attached to said sidewall, the improvement comprising using a second screen lying on top of said first screen, said second screen having holes therein, at least some of the holes having a diameter smaller than that of the holes in said first screen, and having a significantly lower percentage of hole area per unit of screen area than the percentage hole area per unit of screen area of said first screen such that resistance to flow of molten glass through the second screen is greater than the resistance to flow through the first screen.

17. (Previously Amended) The method of claim 16 wherein said material is glass and said bushing is made from precious metal or alloys of precious metal containing a majority of platinum, wherein the thickness of said second screen is between about 0.009 and 0.015 inch and wherein said significantly lower is at least about 10 percent lower.

18. (Original) The method of claim 17 wherein said significantly lower is at least about 20 percent lower.

19. (Original) The method of claim 18 wherein said significantly lower is at least about 30 percent lower.

20. (Previously Amended) The method of claim 16 wherein said bushing is used to make direct chopped fibers at maximum productivity having a diameter that is at least three microns smaller than the fiber that a bushing containing only said first screen can make at maximum productivity.

21. (Currently Amended) A method for forming fibers in a multi-bushing fiberizing operation by transporting a molten material to bushing legs in a channel and by flowing ~~from a~~ the molten material through at least one bushing mounted in at least one bushing leg in a channel position ~~of a multi-bushing fiberizing operation~~, said bushing comprising at least one sidewall and a tip plate or orifice plate through which the molten material flows to form the fibers, and a screen

spaced above said tip plate or orifice plate and having a plurality of holes therein, said screen being attached to said sidewall, the improvement comprising using as ~~a bushing~~ said screen in said bushing a screen that has holes in at least a mid or central portion and in two end portions, said screen having a hole area per unit of screen area in ~~a~~ the ~~center~~ mid or central portion of the screen that is significantly less than the hole area per unit of screen area in the two end portions of the screen, an end portion of the screen located closest to said channel being smaller in area than the other end portion.

22. (Original) The method of claim 21 wherein the hole area per unit area of screen in the central portion of the screen is less than at least about 30 percent of the hole area per unit of screen area in said at least one end portion of said screen.

23. (Currently Amended) In a method for forming fibers from a molten material in ~~a channel position of~~ a multi-bushing fiberizing operation comprising transporting the molten material in a channel to bushing legs and by flowing the molten material through a fiberizing bushing in a channel position, said bushing comprising at least one sidewall and a tip plate or orifice plate through which the molten material flows to form the fibers, and a first screen spaced above said tip plate or orifice plate and having a plurality of holes therein, the first screen being attached to said sidewall, the improvement comprising using a second screen lying on top of the first screen, said second screen having a mid or central portion and two end portions, said second screen having a hole area per unit area of screen ~~a hole diameter and/or a hole density~~ in ~~a~~ the mid or central portion of the screen that is significantly less than the ~~respective~~ hole area per unit area of screen ~~hole diameter and/or hole density~~ in the two end portions of the screen such that resistance to flow of the molten ~~glass~~ material through the central portion of the second screen is greater than the resistance to flow through the two end portions of the second screen.

24. (Currently Amended) The method of claim 23 wherein the ~~hole size and/or hole density~~ hole area per unit area of said central portion of said second screen is such that the percentage of hole area in said central portion is at least about 10 percent less than the hole area percent of the end portions.